

Claims

1. A method of providing a desired range of point-to-ground resistance to trays, comprising:

5 coating a conductive solution onto a polymer film to obtain a conductive sheet having an antistatic layer thereon;

cutting the conductive sheet to be formed into a tray having cut surfaces; and

10 forming a conductive pathway on all or parts of the cut surfaces of the tray.

2. The method according to claim 1, wherein the conductive pathway is formed by coating a conductive solution to the cut surfaces of the tray.

15 3. The method according to claim 2, wherein the coating of the conductive solution is performed by a heat curing process or a UV-curing process.

20 4. The method according to claim 2 or 3, wherein the conductive solution comprises 0.05-40 wt% of a conductive material, the conductive material being selected from the group consisting of a conductive polymer, conductive carbon, a metal, metal oxide, a surfactant, and mixtures

thereof.

5 5. The method according to claim 4, wherein the
conductive polymer is selected from the group consisting of
polypyrrole, polyaniline, polythiophene, derivatives
thereof, and mixtures thereof.

10 6. The method according to claim 5, wherein the
derivative of the conductive polymer is selected from the
group consisting of polythiophene having C₅-C₁₂ alkyl, 3,4-
ethylenedioxy-substituted polythiophene, polyaniline having
C₁-C₄ alkoxy, amino or sulfone, polypyrrole having C₅-C₁₂
alkyl, and mixtures thereof.

7. The method according to claim 4, wherein the
conductive carbon comprises conductive carbon black, carbon
fiber, or carbon nanotube.

15 8. The method according to claim 4, wherein the metal
comprises silver or copper.

9. The method according to claim 4, wherein the metal
oxide comprises doped indium oxide or tin oxide.

10. The method according to claim 4, wherein the

surfactant comprises quaternary ammonium salts, ionic surfactants, non-ionic surfactants, or amine surfactants.

11. The method according to any one of claims 2 to 10, wherein the conductive solution is coated at a thickness of 0.05-5 μm to the cut surfaces of the tray.

12. The method according to claim 1, wherein the conductive pathway is formed by using an antistatic polymer or a metal clamp or a metal clip.

13. The method according to claim 1, wherein the conductive pathway is formed by attaching an antistatic and conductive tape to the cut surfaces of the tray.

14. The method according to claim 1, wherein the conductive pathway is formed by two or more methods selected from among any one of claims 2 to 11, claim 12, and claim 13.

15. A tray having a desired range of point-to-ground resistance by the method of any one of claims 1 to 14.